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AMENDMENTS TO THE SPECIFICATION

Please make the following amendments to the specification.

Please replace paragraph [0013] with the following amended paragraph:

[0013] A simple system is used to describe fragments, analogues, and derivatives of GLP-2. For example, Lys²⁰GLP-2(1-33) designates a fragment of GLP-2 formally derived from GLP-2 by deleting the amino acid residues No. 34 and substituting the naturally occurring amino acid residue in position 20 (Arg) by Lys. Similarly, Arg³⁰Lys³⁵(Nε-tetradecanoyl)GLP-1GLP-2(1-35) designates a derivative of a GLP-2 analogue formally derived from GLP-2 by C-terminal addition of a Lys residue, exchange of the naturally occurring amino acid residue in position 30 (Lys) with an Arg residue and tetradecanoylation of the ε-amino group of the Lys residue in position 35.

Please replace paragraph [0016] with the following amended paragraph:

[0016] In a preferred embodiment, the present invention relates to a GLP-2 derivative wherein the parent peptide has an amino acid sequence according to the formula the following amino acid sequence (SEQ ID NO:1):
 X^1 H His Xaa^2 X^2 D Asp G Gly S Ser F Phe S Ser D Asp E Glu M Met N Asn F Thr Xaa^3 X^3 L Leu D Asp X^4 Xaa^4 L Leu A Ala X^5 Xaa^5 X^6 Xaa^6 D Asp F Phe I Ile N Asn W Trp L Leu X^7 Xaa^7 X^8 Xaa^8 F Thr K Lys I Ile F Thr D Asp X^9 Xaa^9 Xaa^{10} (SEQ ID NO:1),

wherein

X^1 is NH₂, DFPEEVAIVEELGRR (SEQ ID NO:2), DFPEEVTVIEELGRR (SEQ ID NO:3), DFPEEVNIVEELRRR (SEQ ID NO:4), or a fragment thereof,

Xaa^2 X^2 is Ala or Gly,

Xaa^3 X^3 is Ile or Val,

Xaa^4 X^4 is Asn, Ser or His,

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Xaa⁵ X⁵ is Ala or Thr,
Xaa⁶ X⁶ is Arg or Lys,
Xaa⁷ X⁷ is Ile or Leu,
Xaa⁸ X⁸ is Gln or His, and
Xaa⁹ X⁹ is OH, Lys, or Arg, and
Xaa¹⁰ is Arg-Lys, Lys-Arg, Arg-Arg or is missing Lys-Lys (Formula I).

In one aspect, the amino acid sequence of the GLP-2 derivative further includes a sequence selected from Asp Phe Pro Glu Glu Val Ala Ile Val Glu Glu Leu Gly Arg Arg (SEQ ID NO:2), Asp Phe Pro Glu Glu Val Thr Ile Val Glu Glu Leu Gly Arg Arg (SEQ ID NO:3), Asp Phe Pro Glu Glu Val Asn Ile Val Glu Glu Leu Arg Arg Arg (SEQ ID NO:4), or a fragment thereof, positioned at the N-terminus of the Formula I sequence (Formula II).

Please replace paragraph [0025] with the following amended paragraph:

[0025] In a particular aspect, the invention relates to use of a pharmaceutical composition comprising a peptide with an the following amino acid sequence according to Formula I or Formula II X¹-H-X²-D-G-S-F-S-D-E-M-N-T-X³-L-D-X⁴-L-A-X⁵-X⁶-D-F-I-N-W-L-X⁷-X⁸-T-K-I-T-D-X⁹ (SEQ ID NO:1) wherein X¹ is NH₂, DFPEEVAIVEELGRR (SEQ ID NO:2), DFPEEVIVEELGRR (SEQ ID NO:3), DFPEEVNIVEELRRR (SEQ ID NO:4), or a fragment thereof, X² is Ala or Gly, X³ is Ile or Val, X⁴ is Asn, Ser or His, X⁵ is Ala or Thr, X⁶ is Arg or Lys, X⁷ is Ile or Leu, X⁸ is Gln or His, or X⁹ is OH, Lys, Arg, Arg-Lys, Lys-Arg, Arg-Arg or Lys-Lys for the prophylaxis or treatment of diseases or disorders associated with impaired appetite regulation.

Please replace "aspect 47" (on page 24 of the specification) with the following amended aspect:

47. A pharmaceutical composition of any of aspects 37-46, wherein the parent peptide has an the following amino acid sequence according to

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Formula I or Formula II (SEQ ID NO:1)

X¹-H-X²-D-G-S-F-S-D-E-M-N-T-X³-L-D-X⁴-L-A-X⁵-X⁶-D-F-I-N-W-L-X⁷-X⁸-T-K-I-T-D
X⁹

wherein

X¹ is NH₂, DFPEEVAIVEELGRR (SEQ ID NO:2), DFPEEVTIVEELGRR (SEQ ID NO:3), DFPEEVNIVEELRRR (SEQ ID NO:4), or a fragment thereof,

X² is Ala or Gly,

X³ is Ile or Val,

X⁴ is Asn, Ser or His,

X⁵ is Ala or Thr,

X⁶ is Arg or Lys,

X⁷ is Ile or Leu,

X⁸ is Gln or His, and

X⁹ is OH, Lys, Arg, Arg-Lys, Lys-Arg, Arg-Arg or Lys-Lys.

Please replace aspects "58-91" on pages 25-27 of the application with the following substitute aspects:

58. Use of a pharmaceutical composition comprising a peptide with the following an amino acid sequence according to Formula I or Formula II X¹-H-X²-D-G-S-F-S-D-E-M-N-T-X³-L-D-X⁴-L-A-X⁵-X⁶-D-F-I-N-W-L-X⁷-X⁸-T-K-I-T-D-X⁹ wherein X¹ is NH₂, DFPEEVAIVEELGRR, DFPEEVTIVEELGRR, DFPEEVNIVEELRRR, or a fragment thereof, X² is Ala or Gly, X³ is Ile or Val, X⁴ is Asn, Ser or His, X⁵ is Ala or Thr, X⁶ is Arg or Lys, X⁷ is Ile or Leu, X⁸ is Gln or His, and X⁹ is OH, Lys, Arg, Arg-Lys, Lys-Arg, Arg-Arg or Lys-Lys together with a pharmaceutically acceptable excipient or vehicle for appetite suppression or satiety satiety induction.

59-69. The use of a composition according to aspect 58 59, wherein the amino acid sequence is according to Formula I X¹ is NH₂.

60-70. The use of a composition according to aspect 59, wherein X² Xaa² is Ala.

61-71. The use of a composition according to aspect 59, wherein X³ Xaa³ is Ile.

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- ~~62~~ 72. The use of a composition according to aspect 59, wherein
*4 Xaa⁴ is Asn.
- ~~63~~ 73. The use of a composition according to aspect 59, wherein
Xaa⁵ *5 is Ala.
- ~~64~~ 74. The use of a composition according to aspect 59, wherein
Xaa⁶ *6 is Arg.
- ~~65~~ 75. The use of a composition according to aspect 59, wherein
*7 Xaa⁷ is Ile.
- ~~66~~ 76. The use of a composition according to aspect 59, wherein
Xaa⁸ *8 is Gln.
- ~~67~~ 77. The use of a composition according to aspect 59, wherein
*9 Xaa⁹ is OH.
- ~~68~~ 78. The use of a composition according to aspect 59, wherein
the peptide has the sequence
HADGFSDEMNTILDNLAA~~R~~DFIQTKITD (SEQ ID NO:5),
HADGFSDEMNTILDNLAT~~R~~DFINWLIQTKITD (SEQ ID NO:6), or
HADGFSDEMNTVLDNLAT~~R~~DFINWLLHTKITD (SEQ ID NO:7).
- ~~69~~ 79. The use of a composition according to any of aspects 59-
~~68~~ 71, for the prophylaxis or treatment of diseases or disorders associated
with impaired appetite regulation.
- ~~70~~ 80. The use of a composition according to any of the aspects
59-~~69~~ 70 for the prophylaxis or treatment of obesity or type II diabetes.
- ~~71~~ 81. A pharmaceutical composition comprising a peptide of any
of the compositions used in any of aspects 59-70 in combination with
another appetite-suppressing or satiety-inducing agent.
- ~~72~~ 82. A composition according to aspect ~~71~~ 73, wherein said
other appetite suppressing or satiety-inducing agent is glucagon-like
peptide-1.
- ~~73~~ 83. A method of treating diseases or disorders associated with
impaired appetite regulation, the method comprising administering to an
individual in need of such treatment an amount of a peptide comprised in
any of the compositions used according to any of aspects 59-70 sufficient to
suppress appetite or induce satiety in said individual.

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74.84. A method according to aspect 73.83, wherein the disease or disorder is obesity or type II diabetes.

75.85. A method according to aspect 73.83, wherein the amount of the peptide is in the range of from about 1011g/kg body weight to about 5 mg/kg body weight.

76.86. A method of treating diseases or disorders associated with impaired appetite regulation, the method comprising administering to an individual in need of such treatment an amount of a peptide comprised in the composition used according to aspect 59 sufficient to suppress appetite or induce satiety in said individual.

77.87. A method according to aspect 76.86, wherein the disease or disorder is obesity or type II diabetes.

78.88. A method according to aspect 76.86, wherein the amount of the peptide is in the range of from about 10pg/kg body weight to about 5 mg/kg body weight.

~~89. A method of treating diseases or disorders associated with impaired appetite regulation, the method comprising administering to an individual in need of such treatment an amount of a fraction according to aspect 86 sufficient to suppress appetite or induce satiety in said individual.~~

~~90. A method according to aspect 89, wherein the disease or disorder is obesity or type II diabetes.~~

79.91. Use of a peptide comprised in a composition used according to any of aspects 59-70 for the manufacture of a medicament for the prophylaxis or treatment of diseases or disorders associated with impaired appetite regulation.